Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
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L7	922		3649" "2001 		US-PGPUB;	OR	ON	2005/04/15 16:01
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L8		(US-5056021-A US-5471382-A US-5477450-A US-5487132-A US-5490061-A US-5535121-A US-5577166-A US-5644686-A US-5784539-A US-5819271-A US-5893088-A US-5933822-A US-6006221-A US-6167370-A US-6487545-B1 US-6556983-B1 US-6564263-B1).pn. (US-20020013705-A1 US-20030061202-A1).did.	US-PGPUB; USPAT	OR	ON	2005/04/15 16:05
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L10	661	1 '	"4342085"	I	US-PGPUB;	OR	ON	2005/04/15 16:06
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L11	19	(US-5056021-A US-5471382-A US-5477450-A US-5487132-A US-5490061-A US-5535121-A US-5577166-A US-5644686-A US-5784539-A US-5819271-A US-5893088-A US-5933822-A EP-962873-A1 US-6006221-A JP-2000056977-A US-6167370-A US-20020013705-A1 US-6487545-B1 US-20030061202-A1 US-6556983-B1 US-6564263-B1). did.	US-PGPUB; USPAT	OR	ON	2005/04/15 16:13
L12	21	(US-5056021-A US-5471382-A US-5477450-A US-5487132-A US-5490061-A US-5535121-A US-5577166-A US-5644686-A US-5784539-A US-5819271-A US-5893088-A US-5933822-A EP-962873-A1 US-6006221-A JP-2000056977-A US-6167370-A US-20020013705-A1 US-6487545-B1 US-20030061202-A1 US-6556983-B1 US-6564263-B1). did.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/04/15 16:13
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L15	150918	L13 same L14	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 16:23
L16	155	L15 and 7	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/04/15 16:17
L17	7689852	graph\$6 pict\$8 diagram\$5 draw\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 16:16

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L22	96	21 and 7	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 16:24
L23	59	22 and 20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 16:27
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S49	1121284	subject\$1 noun\$1	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 12:18
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S51	150918	S49 same S50	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 12:19
S52	70933	S49 with S50	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 12:20
S53	12274	S49 adj3 S50	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 12:21
S54	15	("6564263" "6556983" "6006221" "5983237" "5893088" "5819271" "5784539" "5644686" "5577166" "5487132" "5471382" "5056021" "6167370" "5933822").pn. "20030061202".did.	US-PGPUB; USPAT	OR	ON	2005/04/15 12:21
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S58	49	("5268840" "5689718" "6140913" "6442545" "5966686" "6326962" "4364056" "5477450" "5857185" "6757652" "5551026" "5553283" "5754847" "6233580" "6182028" "5535121" "5995922" "6651220" "6178417" "5404435" "5950196" "6675170" "5907821" "4980918" "6182026" "6029167" "5245559" "5990888" "5488719" "6229551" "4555773" "4556878" "5003614" "6159329" "6205452" "4800510" "5659766" "5687364" "5617488" "5412769" "6105035" "6134564" "6216139" "6216139" "6745204" "5649215" "5987409" "6016552" "6128595" "5278980").pn.	USPAT	OR	ON	2005/04/15 12:39
S59	1	S53 and S58	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 13:02
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S64	6	S62 and S63	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 13:03
S65	150918	S60 same S61	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 13:03
S66	40195	S65 and "49"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 13:04
S67	7	S65 and S63	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 13:37
S68	7689852	graph\$6 pict\$8 diagram\$5 draw\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 13:36
S69	13454	S65 same S68	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 13:36
S70	5	S69 and S63	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 13:39
S71	779200	S61 same S68	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 13:39
S72	6	S67 and S71	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/15 13:40

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Scene Graph Overview

... A scene graph consists of Java 3D objects, called nodes, arranged in a tree

... the nodes in a direct path between the scene graph's root and the leaf. ...

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... The scene graph abstractly resembles a tree. That is, there are a number of

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... The TM4L Viewer supports three types of view: **Graph** View, Text View and **Tree** View. ... The **root** of the **tree** shows the current (selected) topic. ... www.wssu.edu/iis/NSDL/extras/viewerUserGuideMain.html - 14k - <u>Cached</u> - <u>Similar pages</u>

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- ... WM-GRAPH by Vincenzo Morello is your basic graphing software, and it's free.
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Planar graph decomposition and all pairs shortest paths

Greg N. Frederickson January 1991 Journal of the ACM (JACM), Volume 38 Issue 1

Full text available: pdf(3,26 MB)

Additional Information: full citation, abstract, references, citings, index terms, review

An algorithm is presented for generating a succinct encoding of all pairs shortest path information in a directed planar graph G with real-valued edge costs but no negative cycles. The algorithm runs in O(pn) time, where n is the number of vertices in G, and p is the minimum cardinality of a subset of the faces that cover all vertices, taken over all planar embeddings of G. ...

Keywords: NP-completeness, all pairs shortest paths, approximation algorithm, compact routing table, graph embedding, outerplanar graph, planar graph, succinct encoding

Self-adjusting binary search trees

Daniel Dominic Sleator, Robert Endre Tarjan July 1985 Journal of the ACM (JACM), Volume 32 Issue 3

Full text available: pdf(2.46 MB)

Additional Information: full citation, abstract, references, citings, index terms, review

The splay tree, a self-adjusting form of binary search tree, is developed and analyzed. The binary search tree is a data structure for representing tables and lists so that accessing, inserting, and deleting items is easy. On an n-node splay tree, all the standard search tree operations have an amortized time bound of O(log n) per operation, where by "amortized time" is meant the time per operation averaged over ...

3 Heuristics, Experimental Subjects, and Treatment Evaluation in Bigraph Crossing Minimization



Matthias Stallmann, Franc Brglez, Debabrata Ghosh January 2001 Journal of Experimental Algorithmics (JEA), Volume 6

Full text available: pdf(858.74 KB) ps(3.01 MB)

Additional Information: full citation, abstract, references, index terms

The bigraph crossing problem, embedding the two node sets of a bipartite graph along two parallel lines so that edge crossings are minimized, has applications to circuit layout and graph drawing. Experimental results for several previously known and two new heuristics

suggest continued exploration of the problem, particularly sparse instances. We emphasize careful design of experimental subject classes and present novel views of the results. All source code, data, and scripts are available on-li ...

Keywords: crossing number, design of experiments, graph drawing, graph embedding, graph equivalence classes, layout

The complexity of searching a graph

N. Megiddo, S. L. Hakimi, M. R. Garey, D. S. Johnson, C. H. Papadimitriou January 1988 Journal of the ACM (JACM), Volume 35 Issue 1

Full text available: pdf(2.28 MB)

Additional Information: full citation, abstract, references, citings, index terms, review

T. Parsons originally proposed and studied the following pursuit-evasion problem on graphs: Members of a team of searchers traverse the edges of a graph G in pursuit of a fugitive, who moves along the edges of the graph with complete knowledge of the locations of the pursuers. What is the smallest number s(G) of searchers that will suffice for guaranteeing capture of the fugitive? It is shown that determining whether s(

⁵ Special issue: Game-playing programs: theory and practice

M. A. Bramer

April 1972 ACM SIGART Bulletin, Issue 80

Full text available: pdf(9.23 MB) Additional Information: full citation, abstract

This collection of articles has been brought together to provide SIGART members with an overview of Artificial Intelligence approaches to constructing game-playing programs. Papers on both theory and practice are included.

Separator based sparsification for dynamic planar graph algorithms David Eppstein, Zvi Galil, Giuseppe F. Italiano, Thomas H. Spencer June 1993 Proceedings of the twenty-fifth annual ACM symposium on Theory of computing

Full text available: pdf(1.23 MB)

Additional Information: full citation, references, citings, index terms

Approximation algorithms for NP-complete problems on planar graphs Brenda S. Baker

January 1994 Journal of the ACM (JACM), Volume 41 Issue 1

Full text available: pdf(1.98 MB)

Additional Information: full citation, references, citings, index terms

Keywords: Hamiltonian circuit, Hamiltonian path, NP-complete, approximation algorithms, approximation schemes, dominating set, independent set, partition into perfect matchings,

partition into triangles, planar graphs, vertex cover

Interactive control of avatars animated with human motion data

Jehee Lee, Jinxiang Chai, Paul S. A. Reitsma, Jessica K. Hodgins, Nancy S. Pollard July 2002 ACM Transactions on Graphics (TOG), Proceedings of the 29th annual conference on Computer graphics and interactive techniques, Volume 21 Issue 3

Full text available: pdf(8.00 MB)

Additional Information: full citation, abstract, references, citings, index

Real-time control of three-dimensional avatars is an important problem in the context of

computer games and virtual environments. Avatar animation and control is difficult, however, because a large repertoire of avatar behaviors must be made available, and the user must be able to select from this set of behaviors, possibly with a low-dimensional input device. One appealing approach to obtaining a rich set of avatar behaviors is to collect an extended, unlabeled sequence of motion data appropria ...

Keywords: avatars, human motion, interactive control, motion capture, virtual environments

⁹ The complexity of restricted spanning tree problems

Christos H. Papadimitriou, Mihalis Yannakakis

April 1982 Journal of the ACM (JACM), Volume 29 Issue 2

Full text available: pdf(1.36 MB) Additional Information: full citation, references, citings, index terms

Additional fillionnation. Tall estation, Televisions, Index terms

10 Isomorphism testing and display of symmetries in dynamic trees

Siu-Wing Cheng, Moon-Pun Ng

January 1996 Proceedings of the seventh annual ACM-SIAM symposium on Discrete algorithms

Full text available: pdf(1.25 MB) Additional Information: full citation, references, citings, index terms

11 Transitive closure algorithms based on graph traversal

Yannis Ioannidis, Raghu Ramakrishnan, Linda Winger September 1993 **ACM Transactions on Database Systems (TODS)**, Volume 18 Issue 3

Full text available: pdf(4.34 MB)

Additional Information: full citation, abstract, references, citings, index terms

Several graph-based algorithms have been proposed in the literature to compute the transitive closure of a directed graph. We develop two new algorithms (Basic_TC and Gobal_DFTC) and compare the performance of their implementations in a disk-based environment with a well-known graph-based algorithm proposed by Schmitz. Our algorithms use depth-first search to traverse a graph and a technique called marking to avoid processing some of the arcs in the graph. They compute the ...

Keywords: depth-first search, node reachability, path computations, transitive closure

12 <u>Poly-logarithmic deterministic fully-dynamic algorithms for connectivity, minimum</u> spanning tree, 2-edge, and biconnectivity

Jacob Holm, Kristian de Lichtenberg, Mikkel Thorup

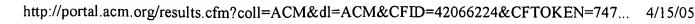
July 2001 Journal of the ACM (JACM), Volume 48 Issue 4

Full text available: pdf(378.20 KB)

Additional Information: full citation, abstract, references, citings, index terms

Deterministic fully dynamic graph algorithms are presented for connectivity, minimum spanning tree, 2-edge connectivity, and biconnectivity. Assuming that we start with no edges in a graph with n vertices, the amortized operation costs are $O(\log^2 n)$ for connectivity, $O(\log^4 n)$ for minimum spanning forest, 2-edge connectivity, and $O(\log^5 n)$ biconnectivity.

Keywords: 2-edge connectivity, Biconnectivity, connectivity, dynamic graph algorithms, minimum spanning tree



13 Technical reports

SIGACT News Staff

January 1980 ACM SIGACT News, Volume 12 Issue 1

Full text available: pdf(5.28 MB)

Additional Information: full citation

14 Work-preserving emulations of fixed-connection networks

Richard R. Koch, F. T. Leighton, Bruce M. Maggs, Satish B. Rao, Arnold L. Rosenberg, Eric J.

January 1997 Journal of the ACM (JACM), Volume 44 Issue 1

Full text available: pdf(719.89 KB) Additional Information: full citation, references, citings, index terms, review

Keywords: graph embeddings, network emulations, parallel architectures, processor arrays

15 Database session 8: interactive data exploration: Hierarchical graph indexing

James Abello, Yannis Kotidis November 2003 Proceedings of the twelfth international conference on Information and

knowledge management

Full text available: pdf(389.96 KB) Additional Information: full citation, abstract, references, index terms

Traffic analysis, in the context of Telecommunications or Internet and Web data, is crucial for large network operations. Data in such networks is often provided as large graphs with hundreds of millions of vertices and edges. We propose efficient techniques for managing such graphs at the storage level in order to facilitate its processing at the interface level (visualization). The methods are based on a hierarchical decomposition of the graph edge set that is inherited from a hierarchical deco ...

Keywords: graph, index, navigation, visualization

16 Optimal bounds for matching routing on trees

Louxin Zhang

January 1997 Proceedings of the eighth annual ACM-SIAM symposium on Discrete algorithms

Full text available: pdf(967.45 KB) Additional Information: full citation, references, citings, index terms

17 Session 10: Heuristics for semi-external depth first search on directed graphs Jop F. Sibeyn, James Abello, Ulrich Meyer

August 2002 Proceedings of the fourteenth annual ACM symposium on Parallel algorithms and architectures

Full text available: pdf(290.97 KB) Additional Information: full citation, abstract, references, index terms

Computing the strong components of a directed graph is an essential operation for a basic structural analysis of it. This problem can be solved by twice running a depth-first search (DFS). In an external setting, in which all data can no longer be stored in the main memory, the DFS problem is unsolved so far. Assuming that node-related data can be stored internally, semi-external computing does not make the problem substantially easier.







Considering the definite need to analyze very large graphs, ...

Keywords: depth first search, external memory, graph algorithms, strong components

¹⁸ Index-driven similarity search in metric spaces

Gisli R. Hjaltason, Hanan Samet

December 2003 ACM Transactions on Database Systems (TODS), Volume 28 Issue 4

Full text available: pdf(650.64 KB)

Additional Information: full citation, abstract, references, citings, index terms

Similarity search is a very important operation in multimedia databases and other database applications involving complex objects, and involves finding objects in a data set S similar to a query object q, based on some similarity measure. In this article, we focus on methods for similarity search that make the general assumption that similarity is represented with a distance metric d. Existing methods for handling similarity search in this setting typically fall into one of ...

Keywords: Hiearchical metric data structures, distance-based indexing, nearest neighbor queries, range queries, ranking, similarity searching

19 Fibonacci heaps and their uses in improved network optimization algorithms

Michael L. Fredman, Robert Endre Tarjan

July 1987 Journal of the ACM (JACM), Volume 34 Issue 3

Full text available: pdf(1.52 MB)

Additional Information: full citation, abstract, references, citings, index terms, review

In this paper we develop a new data structure for implementing heaps (priority queues). Our structure, Fibonacci heaps (abbreviated F-heaps), extends the binomial queues proposed by Vuillemin and studied further by Brown. F-heaps support arbitrary deletion from an n-item heap in O(log n) amortized time and all other standard heap operations in O (1) amortized time. Using F-heaps we are able ...

²⁰ Online partial deduction of logic programs

Steven Prestwich

August 1993 Proceedings of the 1993 ACM SIGPLAN symposium on Partial evaluation and semantics-based program manipulation

Full text available: pdf(2.11 MB)

Additional Information: full citation, abstract, references, citings; index terms

Partial deduction systems must be guided by an unfolding strategy, telling them which atoms to unfold and when to stop unfolding. Online strategies exploit knowledge accumulated during the unfolding itself, for example in a goal stack, while offline strategies are fixed before unfolding begins. Online strategies are more powerful, but a major overhead for large programs is the analysis time spent on each atom, which increases as the knowledge grows. We describe an online strategy whose anal ...

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Pattern Matching in Trees

Christoph M. Hoffmann, Michael J. O'Donnell January 1982 Journal of the ACM (JACM), Volume 29 Issue 1

v

Full text available: pdf(1.45 MB)

Additional Information: full citation, references, citings, index terms

2 Attribute grammar paradigms—a high-level methodology in language implementation Jukka Paakki



June 1995 ACM Computing Surveys (CSUR), Volume 27 Issue 2

Full text available: pdf(5.15 MB)

Additional Information: full citation, abstract, references, citings, index terms, review

Attribute grammars are a formalism for specifying programming languages. They have been applied to a great number of systems automatically producing language implementations from their specifications. The systems and their specification languages can be evaluated and classified according to their level of application support, linguistic characteristics, and degree of automation. A survey of attribute grammar-based specification languages is given. The modern advanced specification ...

Keywords: attribute grammars, blocks, classes, compiler writing systems, functional dependencies, incomplete data, incrementality, inheritance, language processing, language processor generators, lazy evaluation, logical variables, objects, parallelism, processes, programming paradigms, semantic functions, symbol tables, unification

Fast detection of communication patterns in distributed executions

Thomas Kunz, Michiel F. H. Seuren

November 1997 Proceedings of the 1997 conference of the Centre for Advanced Studies on Collaborative research

Full text available: pdf(4.21 MB)

Additional Information: full citation, abstract, references, index terms

Understanding distributed applications is a tedious and difficult task. Visualizations based on process-time diagrams are often used to obtain a better understanding of the execution of the application. The visualization tool we use is Poet, an event tracer developed at the University of Waterloo. However, these diagrams are often very complex and do not provide the user with the desired overview of the application. In our experience, such tools display repeated occurrences of non-trivial commun ...

4 Solving NP-Hard Problems on Graphs That Are Almost Trees and an Application to Facility Location Problems



Yuri Gurevich, Larry Stockmeyer, Uzi Vishkin

June 1984 Journal of the ACM (JACM), Volume 31 Issue 3

Full text available: pdf(785.37 KB) Additional Information: full citation, references, citings, index terms

Computing curricula 2001

September 2001 Journal on Educational Resources in Computing (JERIC)

Full text available: pdf(613.63 KB) **釣 html(2.78 KB)**

Additional Information: full citation, references, citings, index terms

Technical reports

SIGACT News Staff

January 1980 ACM SIGACT News, Volume 12 Issue 1

Full text available: pdf(5.28 MB)

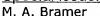
Additional Information: full citation

Time-constrained scheduling of weighted packets on trees and meshes Micah Adler, Sanjeev Khanna, Rajmohan Rajaraman, Adi Rosén June 1999 Proceedings of the eleventh annual ACM symposium on Parallel algorithms and architectures

Full text available: pdf(1.53 MB)

Additional Information: full citation, references, citings, index terms

Special issue: Game-playing programs: theory and practice



April 1972 ACM SIGART Bulletin, Issue 80

Full text available: pdf(9.23 MB)

Additional Information: full citation, abstract

This collection of articles has been brought together to provide SIGART members with an overview of Artificial Intelligence approaches to constructing game-playing programs. Papers on both theory and practice are included.

Ordered and reliable multicast communication

Hector Garcia-Molina, AnneMarie Spauster

August 1991 ACM Transactions on Computer Systems (TOCS), Volume 9 Issue 3

Full text available: pdf(1.90 MB)

Additional Information: full citation, references, citings, index terms

Keywords: message ordering, multicast communication

¹⁰ Structural analysis of hypertexts: identifying hierarchies and useful metrics Rodrigo A. Botafogo, Ehud Rivlin, Ben Shneiderman

April 1992 ACM Transactions on Information Systems (TOIS), Volume 10 Issue 2

Full text available: pdf(2.24 MB)

Additional Information: full citation, abstract, references, citings, index

terms

Hypertext users often suffer from the "lost in hyperspace" problem: disorientation from too many jumps while traversing a complex network. One solution to this problem is improved authoring to create more comprehensible structures. This paper proposes several authoring tools, based on hypertext structure analysis. In many hypertext systems authors are encouraged to create hierarchical structures, but when writing, the hierarchy is lost because of the inclusion of cros ...

Keywords: graph theory, hierarchies, hypertext, metrics, structural analysis

11 On randomization in sequential and distributed algorithms

Rajiv Gupta, Scott A. Smolka, Shaji Bhaskar

March 1994 ACM Computing Surveys (CSUR), Volume 26 Issue 1

Full text available: pdf(8.01 MB)

Additional Information: full citation, abstract, references, citings, index terms

Probabilistic, or randomized, algorithms are fast becoming as commonplace as conventional deterministic algorithms. This survey presents five techniques that have been widely used in the design of randomized algorithms. These techniques are illustrated using 12 randomized algorithms—both sequential and distributed— that span a wide range of applications, including: primality testing (a classical problem in number theory), interactive probabilistic proof s ...

Keywords: Byzantine agreement, CSP, analysis of algorithms, computational complexity, dining philosophers problem, distributed algorithms, graph isomorphism, hashing, interactive probabilistic proof systems, leader election, message routing, nearest-neighbors problem, perfect hashing, primality testing, probabilistic techniques, randomized or probabilistic algorithms, randomized quicksort, sequential algorithms, transitive tournaments, universal hashing

12 Tree Unification Grammar

Fred Popowich

June 1989 Proceedings of the 27th conference on Association for Computational Linguistics

Full text available: pdf(852.42 KB)

Additional Information: full citation, abstract, references

Tree Unification Grammar is a declarative unification-based linguistic framework. The basic grammar structures of this framework are partial descriptions of trees, and the framework requires only a single grammar rule to combine these partial descriptions. Using this framework, constraints associated with various linguistic phenomena (reflexivisation in particular) can be stated succinctly in the lexicon.

¹³ The FINITE STRING Newsletter: Abstracts of current literature

Computational Linguistics Staff

January 1987 Computational Linguistics, Volume 13 Issue 1-2

Publisher Site

Full text available: pdf(6.15 MB) Additional Information: full citation

¹⁴ Scheduling multicasts on unit-capacity trees and meshes Monika R. Henzinger, Stefano Leonardi



January 1999 Proceedings of the tenth annual ACM-SIAM symposium on Discrete algorithms

Full text available: pdf(1.30 MB)

Additional Information: full citation, references, index terms

¹⁵ A generalized algorithm for centrality problems on trees

Arnon Rosenthal, José A. Pino

April 1989 Journal of the ACM (JACM), Volume 36 Issue 2

Full text available: pdf(967.41 KB)

Additional Information: full citation, abstract, references, index terms,

A general framework is presented for rapidly analyzing tree networks to compute a measure of the centrality or eccentricity of all vertices in the tree. Several problems, which have been previously described in the literature, fit this framework. Some of these problems have no published solution better than performing a separate traversal for each vertex whose eccentricity is calculated. The method presented in this paper performs just two traversals and yi ...

¹⁶ Visualizing software objects: Challenges in graph-based relational data visualization Emanuel G. Noik

on Collaborative research - Volume 1



Full text available: pdf(1.44 MB)

Additional Information: full citation, abstract, references

During recent years we have witnessed a growing trend toward the use of visual interfaces to view and query databases. The graph topovisual formalism is particularly well-suited for depicting relational data. The vertices of a directed graph represent a set of entities, while arcs represent relationships among the entities. This paper studies the functional requirements of a hypothetical graph visualization facility (GVF) by surveying past work in related areas and by describing challenging prob ...

17 Finding minimum-quotient cuts in planar graphs

James K. Park, Cynthia A. Phillips

June 1993 Proceedings of the twenty-fifth annual ACM symposium on Theory of computing

Full text available: pdf(1.06 MB) Additional Information: full citation, references, citings, index terms

18 A polynomial algorithm for the min-cut linear arrangement of trees

Mihalis Yannakakis

October 1985 Journal of the ACM (JACM), Volume 32 Issue 4

Full text available: pdf(3.72 MB)

Additional Information: full citation, abstract, references, citings, index terms, review

An algorithm is presented that finds a min-cut linear arrangement of a tree in O(n log n) time. An extension of the algorithm determines the number of pebbles needed to play the black and white pebble game on a tree.

19 A survey of structured and object-oriented software specification methods and

techniques

Roel Wieringa

December 1998 ACM Computing Surveys (CSUR), Volume 30 Issue 4

Full text available: pdf(605.26 KB)

Additional Information: full citation, abstract, references, citings, index terms, review





This article surveys techniques used in structured and object-oriented software specification methods. The techniques are classified as techniques for the specification of external interaction and internal decomposition. The external specification techniques are further subdivided into techniques for the specification of functions, behavior, and communication. After surveying the techniques, we summarize the way they are used in structured and object-oriented methods and indicate ways in w ...

Keywords: languages

²⁰ The complexity of restricted spanning tree problems

Christos H. Papadimitriou, Mihalis Yannakakis

April 1982 Journal of the ACM (JACM), Volume 29 Issue 2

Full text available: pdf(1.36 MB) Additional Information: full citation, references, citings, index terms

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